

PUBLIC WATER SYSTEM SUPERVISION (PWSS) PROGRAM
FFY 2012 End-of-Year Report

GOAL 1: TO ASSURE THAT WATER SUPPLIERS ARE IN COMPLIANCE WITH THE STATE SANITARY CODE AND THAT AN ADEQUATE QUANTITY OF POTABLE, AESTHETICALLY PLEASING DRINKING WATER IS DELIVERED BY PUBLIC WATER SUPPLIES.

1. Assure compliance with Part 5 of the SSC by:

- A. Initiating timely and appropriate action against all significant non-compliers (SNCs), by bringing SNCs into compliance or negotiating a voluntary signed compliance schedule or initiating formal legal proceedings within six months of discovery, including reviewing quarterly Enforcement Targeting Tool (ETT) reports as provided by the U.S. Environmental Protection Agency (USEPA), and reporting on the status of unresolved SNCs to USEPA on a quarterly basis.

STATUS: The New York State Department of Health (NYSDOH), Bureau of Water Supply Protection (Bureau) submitted quarterly SNC status reports to USEPA as required. The following is a summary of compliance activities during the reporting period:

Return to Compliance – 101

Enforcement Action Taken – 150

- B. Immediately responding to all acute violations (nitrate, E. coli, etc.), including assuring that appropriate corrective actions are taken, appropriate public advisories are issued within 24 hours, and problem alerts are issued as needed.

STATUS: Immediate response was made for all acute violations. Eighty-one (81) problem alerts were prepared and issued by Field and Bureau staff. Nine (9) of the problem alerts were for microbiological events involving E. coli. Twenty-one (21) of the 81 problem alerts were for failed infrastructure/equipment with the vast majority being pipe breaks.

In the aftermath of Hurricane Irene and Tropical Storm Lee, Field and Bureau staff provided direct assistance to affected water systems and communities. Although the storms took place in FFY 2011, response and recovery efforts extended into FFY 2012. A total of 168 water systems were adversely impacted by the storms, 126 of the affected systems were required to operate under boil water notices. The Bureau assisted in setting up a dedicated web page for citizens including information on the status of public water systems and guidance for private well owners in the aftermath of the storms. The web page was updated as often as twice daily and provided the status of boil water notices at public water systems and information on boiling water. The Bureau also provided the assembled information to the State Office of Emergency Management.

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- C. Investigating all reports of possible waterborne disease outbreaks and reporting identified outbreaks to the Centers for Disease Control and Prevention (CDC).

STATUS: Should the need arise, staff is prepared to investigate all possible waterborne disease outbreaks, report identified outbreaks, and review engineering studies that are proposed to address and mitigate any outbreak. With the support of a CDC grant, the waterborne outbreak reporting mechanism is currently being enhanced. Internally, NYSDOH has also developed an interface – Outbreak Management Solution (OMS) – that is currently being used by central office and Local Health Department (LHD) staff to accumulate outbreak information on a statewide basis.

Three legionellosis outbreaks were reported in the National Outbreak Reporting System (NORS). To enhance our ability to rapidly recognize and respond to legionellosis events and outbreaks Bureau staff in the Center of Environmental Health and the Center for Community Health have finalized a field document entitled "Environmental Health Information Related to Legionellosis in Healthcare Facilities." This document is for use by environmental specialists and epidemiologists involved in legionellosis outbreak investigations. A version of the Environmental Assessment Form (EAF) for the investigation of legionellosis events occurring in the health regulated facilities was developed for use in community legionellosis investigations.

- D. Conducting annual reviews and sanitary surveys at all public water systems granted a waiver from disinfection.

STATUS: During the reporting period, there were approximately 1046 sanitary surveys and/or site visits conducted at the approximately 1417 public water systems that maintain a valid waiver from disinfection.

The process for obtaining and maintaining a disinfection waiver was updated. Form DOH-350, Application for Certificate of Waiver from Disinfection Requirements was finalized in October 2011 and Environmental Health Manual Item 201, Water Supply Disinfection Waiver Review, was updated effective December 2011.

- E. Reviewing operation reports submitted by public water suppliers, identifying violations and other problems that require follow-up.

STATUS: During the period October 1, 2011 through September 30, 2012 over 65,000 operation reports were received and reviewed by Bureau and LHD staff with appropriate follow up actions taken where required. Bureau and LHD staff also reviewed over 1,000 operation reports on the use of fluoride by public water systems across the State. This information was shared with the Department's Bureau of Dental Health for review and entry into the federal Water Fluoridation Reporting System (WFRS). Data in WFRS can be viewed by the public, dental

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professionals, and public health staff to assist in determining the level of fluoride prophylaxis necessary.

- F. Assuring Annual Water Quality Reports (AWQRs) are issued when required.

STATUS: A total of 1,796 AWQRs for calendar year 2011 were received. Twenty-six (26) Notice of Violation (NOV)'s were issued for AWQR reports that were overdue.

2. Coordinate with Wadsworth Center for Laboratories and Research (WCLR) to assure that State Laboratory capabilities are maintained by:

- A. Maintaining USEPA certification of the State Laboratory for all analyses required under the Safe Drinking Water Act (SDWA), including participation in water supply proficiency testing (WSPT) studies conducted by approved providers.

STATUS: The accreditation of the State Laboratory by the National Environmental Lab Accreditation Program (NELAP) remains unchanged and certification has been maintained.

- B. Maintaining implementation of the lab certification program for laboratories performing drinking water analyses, per primacy requirements.

STATUS: The NYSDOH continues to maintain implementation of the Environmental Laboratory Accreditation Program (ELAP). To become certified, a laboratory must be directed by an individual who is qualified through education and experience and perform satisfactorily in at least semi-annual proficiency testing and a biennial on-site inspection. More detailed information on this program can be obtained at: <http://www.wadsworth.org/labcert/elap/elap.html>.

- C. Maintaining and updating, as necessary, a Quality Assurance Management Plan (QAMP).

STATUS: The Bureau continues to implement the USEPA Region 2 approved QAMP, which covers the five-year period from FY2007-FY2012.

- D. Conducting special surveillance sampling for bacteriological parameters, as well as inorganic and organic chemicals at public water systems.

	Goal	Samples Analyzed
Bacteriological	9,600	12,474
Inorganic Chemicals	2,000	1,785
Organic Chemicals	700	599
Radiologicals	50	207

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STATUS: Surveillance sampling for SOC/IOC/NOC has continued as scheduled. Approximately 12,474 bacteriological, 1,785 inorganic, 599 organic and 207 radiological samples were collected and analyzed in the reporting period.

3. Provide technical assistance to public water systems in achieving compliance by:

- A. Responding to requests and inquiries regarding technical assistance, rule interpretation, or guidance, including responding to consumer complaints.

STATUS: NYS DOH and LHD staff provided technical assistance and/or guidance to dozens of regulated public water systems; all consumer complaints were addressed. Field and Bureau staff responded to hundreds of calls and emails from consumers and water purveyors.

- B. Determining compliance with existing regulations and promoting improved operation of public water systems by conducting periodic sanitary surveys.

Sanitary Surveys

Community Water Systems (CWS) (75%)

Non-Transient Non-Community Water Systems (NTNCWS) (50%)

(Transient) Non-Community Water Systems (TNCWS) (20-33%)

STATUS: The following summary is based on a count of sanitary surveys completed for the period October 1, 2011 – September 30, 2012.

<i>Type PWS</i>	<i># of Surveys</i>
CWS**	1,494
NTNCWS	437
TNCWS	3,917

***Includes the following types of CWS: Municipal, Purchase, Surface w/ treatment, Avoidance, Groundwater*

- C. Providing technical project assistance (e.g., fluoridation, Drinking Water State Revolving Fund (DWSRF)) to public water systems.

STATUS: Field and Bureau staff provided direct technical assistance to dozens of small public water systems on design and operational problems. The technical assistance program provided on-site technical evaluation of fluoridation processes at water systems to help them maintain optimal fluoride levels. Twenty three (23) systems received on site fluoridation assessments and a formal follow-up report was provided to one (1) water system during the reporting period. Two (2) full day drinking water training sessions on fluoridation for operators was held across the State during the reporting period.

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For the DWSRF program, staff provides technical assistance on an ongoing basis either directly or indirectly through work on reviewing and approving plans and bringing DWSRF projects to closure of financing. Direct technical assistance is provided by assisting communities in filling out DWSRF pre-applications, meeting with communities that currently have projects ongoing, and working directly with consultants or other community representatives to assist them with the DWSRF application process. In addition, staff continue to provide small system technical assistance to systems that received funding through the American Recovery and Reinvestment Act of 2009 (ARRA) to ensure that they remain in compliance with the requirements of the act while their projects are under construction.

For FFY 2012 there were 18 DWSRF binding commitments executed for a total of \$75.6 million. \$74 million of this total went to systems serving populations less than 10,000. Over half went to even smaller systems, with \$44 million for systems with populations of less than 3,300. Most of the funds, \$63.8 million, including over \$20 million in grants, went to small disadvantaged communities. Significant staff time was dedicated to technical assistance to small disadvantaged communities, many of which lack the needed sophistication to successfully complete the funding application process.

- D. Directing provision of small system technical assistance (TA) through third party contract.

STATUS: Bureau staff continued to direct the small systems TA contractor. During the period October 1, 2011 through September 30, 2012, more than 237 site visits and over 3,625 man-hours were dedicated to providing on-site assistance for small water systems and significant non-compliers. Direct assistance included, but was not limited to leak detection, emergency assistance, capacity development, and completion of reporting forms, applications and Standard Operating Procedures.

Five days of training occurred in the reporting period. The contract for TA services is for five years, and was issued on August 1, 2008.

4. Assure public health protection at public water systems using surface water sources by:

- A. Assuring unfiltered community and non-community surface water supplies follow established avoidance determinations, compliance schedules, exemption approvals, or stipulations to meet filtration mandates, including annual sanitary surveys.

STATUS: As of September 30, 2012, eight (8) CWSs and one (1) Non-Community Water System remain out of compliance with the Surface Water Treatment Rule (SWTR). Compliance schedules exist for six (6) of the CWSs. There were twenty-

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two (22) Ground Water Under the Direct Influence [of Surface Water] (GWUDI) systems out of compliance with the SWTR. Compliance schedules exist for nine (9) of these systems.

- B. Completing Comprehensive Evaluations (CPEs) at 2 to 3 existing community water treatment plants each year.

STATUS: Due to travel restrictions, CPEs at community water system filtration plants were limited. Field work for two (2) CPEs occurred in May and August, 2012. The final reports are being drafted. No Focused Performance Evaluations (FPE's) were completed during the reporting period. FPEs assess specific operational issues including filter media evaluations, Disinfection by-product and disinfection assessments, and Total Organic Carbon (TOC) and/or color problems.

- C. Conducting 2 to 3 follow-up visits at communities that had a full CPE to determine the degree of implementation of the recommendations, to discuss any new difficulties at these facilities, or to support communities who are having a specific critical problem.

STATUS: Due to state travel restrictions, no follow-up visits were held with the operators or managers for a system that received a CPE during the reporting period.

5. Assure public health protection by developing, adopting and implementing mandatory federal drinking water regulations into State Sanitary Code, including development and submittal of primacy packages, for:

- A. Groundwater Rule

STATUS: Revisions to the New York State regulations to implement the Groundwater Rule were adopted on November 9, 2011. The primacy package was submitted to Region 2 on June 5, 2012 and awaits publication in the Federal Register. During the reporting period, there were five (5) systems with fecal indicator positive triggered source water samples.

- B. Variance and Exemption Rule

STATUS: Regulatory process for adoption of Variance and Exemption Rule initiated within the Bureau with adoption expected in 2013.

- C. Lead and Copper Rule Minor/Short-Term Revisions

STATUS: Regulatory process for adoption of LCRMSR initiated within the Bureau with adoption expected in 2013.

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D. Long Term 2 SWTR and Stage 2 Disinfectants and Disinfection By-Products Rule

STATUS: Regulatory process for adoption of LT2/Stage2 initiated within the Bureau with adoption expected in 2013. Successful collaborative efforts between NYSDOH and USEPA, Region 2 on the early implementation aspects of the LT2/Stage2 continues.

E. Cross-Media Electronic Reporting Rule (CROMERR) will be adopted and implemented for eDWR under the limited set of requirements applicable to states that do not incorporate electronic signature requirements in their primacy package.

STATUS: The planned deployment of Electronic Drinking Water Reporting (eDWR) has been delayed. A new working group has been convened to facilitate implementation. Throughout this process, CROMERR standards have been considered and will be adopted and implemented when the eDWR application is operational.

F. Other Federal Regulations will be adopted into the State Sanitary Code and primacy packages will be submitted in an expeditious manner as these rules are federally promulgated.

STATUS: No other primacy applications were made during the reporting period.

G. Assist the USEPA in the Implementation of the Unregulated Contaminant Monitoring Rule and developing alternative strategies for regulating contaminants.

STATUS: Bureau staff assisted USEPA with the early implementation phases of the Unregulated Contaminant Monitoring Rule 3 (UCMR3) by completing the following tasks:

- *Staff reviewed the Large System Inventory (LSI) which included verification and updating correct public water supply inventory data (PWS ID, facility ID), and sample point ID for each PWS to be used for reporting in the UCMR3 Safe Drinking Water Accession and Review System (SDWARS);*
- *Staff prepared and distributed notification letters to 145 large public water systems required to conduct Assessment Monitoring (List 1) and Screen Survey (List 2);*
- *Staff prepared and distributed notification letters to the 55 small public water systems selected to conduct Assessment Monitoring;*
- *Staff prepared and distributed notification letters to 23 small systems that were selected to conduct the Screening Survey (List 2);*
- *Staff provided USEPA with sampling point and sampler contact information for the 55 small systems that were selected to conduct Assessment Monitoring.*

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- *Staff assisted large public water systems with their registration and inventory review tasks in the Central Data Exchange (CDX) SDWARS database. Staff followed up with systems that had not completed their registration requirements to ensure their compliance with federal regulations. (99% of NYS's large public water systems are in compliance with required UCMR3 tasks to date.)*

GOAL 2: ASSURE THAT LOCAL HEALTH DEPARTMENTS ARE FOLLOWING DEPARTMENT OF HEALTH POLICY FOR REGULATING PUBLIC WATER SUPPLIES.

1. Insure that LHD water supply programs properly implement the program by:

- A. Continuing to use the Safe Drinking Water Information System (SDWIS)-State as reporting and management tool, including the training of regional staff and LHDs on SDWIS-web.

STATUS: The Bureau continues its highly effective policy of providing training to staff of LHDs via teleconferencing software. Multimedia conference calls involve not only staff of the LHDs and District Offices (user groups) but also the field coordinator staff (administration) assigned to a particular county or District Office. The Regional Environmental Health Directors (who oversee field coordination staff) as well as Center for Environmental Health (an administrative division of NYSDOH) staff received notification prior to the proposed training. This method has proven valuable as all interested parties will participate in training to the benefit of all involved.

Total system usage during the reporting period was approximately 228,171 sessions. This is approximately the same as the usage reported for the same period last year. The sustained use is credited to the efforts of regional field staff in promoting the new environmental health assessment protocol and performing reviews of the efficacy of LHDs based on the recommendations of the environmental health assessment tool.

The number of staff with rights to use SDWIS application is similar to that reported in the previous year. Presently, 771 users have rights to SDWIS including: System administration, data entry or inventory access. This does not account for the usage by those viewing SDWIS data through Drinking Water Watch (DWW) which has been optimized to allow for use by public and private water testing laboratories (to support eDWR) and eventually, by the general public.

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- B. Continuing the development of usable management reports from SDWIS-State (i.e., compliance reports, etc.), and SDWIS Add-Ons.

STATUS: SDWIS quality checks support the promulgation of new rules and enhance the tracking efforts pertaining to existing rules. The number of total daily quality check categories is 106. The Bureau created the Enhanced Quality Report – that is, a highly detailed description of each error / quality category for use by the field. Each enhanced quality check provides the name of the quality check, describes what is checked, provides step-by-step instructions on correcting errors, and provides a description on how the error is created. Field coordinators have been provided with a spreadsheet containing all 106 enhanced quality checks.

- C. Developing and implementing electronic water quality data exchange (electronic Drinking Water Reporting, eDWR), including becoming CROMERR compliant if applicable, for the direct reporting of laboratory data into the SDWIS database.

STATUS: Progress continues to be made on the deployment of Electronic Drinking Water Reporting (eDWR). A new working group has been convened to facilitate the implementation of eDWR. There is continued communication between the Bureau and State laboratory personnel on the implementation and deployment process.

- D. Developing and submitting annual compliance report by July 1.

STATUS: NYSDOH prepares a report of public water systems that had violations during the previous year to satisfy the requirements of Section 1414(c)(3) of the 1996 Amendments to the SDWA. New York submits data including public water supply inventory statistics, violations, and enforcement actions issued to violators to SDWIS/Fed on a quarterly basis. Tables in the report are based on data retrieved from NYSDOH databases maintained by each of the LHDs and district offices. Note: The 2011 annual compliance report was posted on the Department's public web site on July 2, 2012 and is available for review.

- E. Conducting annual targeted audits of all LHDs.

STATUS: Field coordinators performed quarterly site visits to each county located within their field coordination area. Field coordinators provided written reports of findings and recommendations to LHDs in a timely manner.

- F. Continuing implementation of Drinking Water Enhancement (DWE) grants, including approving annual water plans.

STATUS: Review and approval of 37 drinking water work plans through the DWE grant program ensures implementation of a full drinking water program at the local level.

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- G. Continuing to provide training to LHDs for properly conducting sanitary surveys at public water systems with groundwater and/or surface water sources.

STATUS: Sanitary Survey training was presented to LHD staff by the Cadmus group under contract with NYSDOH. A total of three (3) sessions were provided and consisted of two sessions on Sanitary Surveys at groundwater systems and one session on Sanitary Surveys at surface water systems.

Training on the SDWIS Web 2.1 and 2.2 Site Visit / Sanitary Survey application was provided to drinking water program staff at all levels. Instruction for optimal use of the application and review of basic sanitary survey procedures was provided. Follow-up and support on use of the application is available continuously through SDWIS Help Desk function of the Information Systems section of the Bureau of Water Supply Protection.

- H. Implementing recommendations made during the data verification audit.

STATUS: The Bureau continued to implement the recommendations resulting from the 2008 Data Verification Audit. Results of the 2008 audit have been shared with Regional staff; timetables specific to recommendations were produced, discussed and distributed to field coordination within each region.

Specifically, the Bureau continued with training, program reviews and data verification at LHDs. Quality assurance (QA) programs are continually reviewed and updated (see enhanced quality descriptions), and staff was encouraged to enter all sample results and violation data into SDWIS in a timely manner. Local offices are encouraged to update sample schedule information. The Bureau continued to work on developing eDWR to help LHDs reduce the burden of data entry.

GOAL 3: ASSURE THAT WATER SUPPLIERS ARE ADEQUATELY PROTECTING THEIR SUPPLIES, ARE PLANNING FOR FUTURE NEEDS AND CONSTRUCTING FACILITIES TO ADEQUATELY COLLECT, STORE, TREAT AND DISTRIBUTE POTABLE AND AESTHETICALLY PLEASING WATER.

- 1. Assure that water supply facilities are built in accordance with proper design criteria by providing conceptual review and design approval of new construction and major modifications to water supply systems, including:**
 - A. Engineering plans/reports and specifications, inclusive of pilot studies and corrosion control plans.

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STATUS: Approximately 528 engineering plans/reports and specifications, including pilot studies and corrosion control plans, were approved by Bureau and Field Staff.

B. New processes

STATUS: No new processes were approved during the reporting period.

C. Cross connection control plans

STATUS: Approximately 150 cross connection control plans were approved.

D. Emergency Plans

STATUS: NYS Public Health Law requires all community water systems in New York that serve populations greater than 3,300 to update contact information in Vulnerability Assessments (VAs) and Emergency Response Plans (ERPs) annually and provide a full resubmission of their VAs and ERPs to the State every five years. A full resubmission is due January 1, 2013. The Bureau has offered a 60-day extension of this date to PWS in the thirteen-county post-Sandy Disaster Declaration area.

There are 330 community water systems serving greater than 3300 people that are required to submit VAs/ERPs. The Bureau mailed notifications about submittal due dates to the water systems. The Bureau in coordination with NYRWA revised VA/ERP templates and posted those on the NYRWA web site. The Bureau is in the process of updating review and approval guidance which will be mailed to LHDs.

E. On-Site Waste Treatment Systems (OWTS) plans, policy, and design

STATUS: No plans were received during the reporting period. Revisions to the companion document to Appendix 75-A titled "Residential Onsite Wastewater Treatment Systems Design Handbook", were finalized and published in July, 2012.

2. Continue to assess whether community groundwater systems may be under the influence of surface water. During each reporting year, make significant progress toward completion of assessments and/or compliance (approximately 50 Community Wells/year).

STATUS: Staff continue to make progress on GWUDI assessments. While the number of wells in need of determinations has substantially shrunk in recent years, Hurricane Irene and Tropical Storm Lee's impact on stream courses and local hydrology created a significant number of drinking water sources with new risks for

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surface water influences. New screen criteria were created and determination studies were conducted accordingly.

The status of GWUDI determinations follow:

Negative determinations completed=11,393

Positive determinations=408

Not addressed=1,134

- 3. Continue to implement the State's Capacity Development Program including submitting the Annual Capacity Development Report to the USEPA by December 31st of each year, and submitting the triennial Report to the Governor by September 30, 2014.**

STATUS: Implementation of the State's Capacity Development Program based on the Capacity Development Strategy approved by the USEPA on September 29, 2000 is ongoing. The Annual Capacity Development Report for FFY 2011 was submitted to USEPA in December 2011.

In July 2012, NYSDOH received a request from New York Rural Water Association (NYRWA) to provide at least three 6-hour Check Up Program for Small Systems (CUPSS) training sessions for operators and circuit riders. NYSDOH coordinated with NYRWA to establish the logistics and details necessary to provide the requested training. Two training sessions for an introduction to CUPSS have been scheduled for July 10, 2013 (Fishkill, NY) and July 11, 2013 (Oneonta, NY).

- 4. Continue to implement the Source Water Assessment and Protection Programs by:**

- A. Reviewing and updating, as appropriate, approximately 50 new/existing source water assessments annually.**

STATUS: Source water assessments are updated through SDWIS as part of sanitary surveys that include a source water evaluation. Procedures are in place to ensure that an initial source water assessment is prepared at water systems that are developing new sources.

- B. Updating or preparing a Source Water Assessment Plan summary report where needed.**

STATUS: One request for a SWAP summary report was received during the reporting period. Staff provided assistance to the public when source water

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protection information requests were made. Over 50 requests for drinking water and source water assessment information were filled. Requests from pipeline companies about public water sources and assessment areas near pipeline routes were received from three pipeline companies. Federal regulations require the companies to get information about drinking water sources and assessment areas near pipeline routes but may not address springs used for drinking water appropriately.

- C. Continuing to provide support to LHDs and communities in developing a source protection/well head protection program that incorporates the source water assessment.

STATUS: Staff continues to provide guidance on using source water assessment reports and conducting source water protection activities including well head protection. Review of the New York State Department of Environmental Conservation (NYSDEC) draft environmental impact statement and corresponding regulations for Horizontal Drilling and High-Volume Hydraulic Fracturing for natural gas in the Marcellus Shale continues and was expanded to include a Health Impact Assessment. The work has been part of a team from NYSDOH looking at all aspects of public health including drinking water protection related to gas drilling.

Staff interact on a regular basis with the staff in the Division of Water at the NYSDEC on water quality and quantity issues. The NYSDEC is responsible for implementing the Clean Water Act in New York State, as well as many other programs that impact water quality. The collaboration often focuses efforts on waters with significant use as a source of potable water. Some examples in addition to the one described above for natural gas development include but are not limited to work on harmful algal blooms, solvent contamination of groundwater, concentrated animal feed operations (CAFO), and climate change effects. Another activity is participation in the Great Lakes Basin Advisory Council (GLBAC), established by the New York State Legislature and coordinating with other Great Lakes organizations.

- D. Ensuring that public water systems that draw water from the Hudson River are properly monitored and protected during and after the Hudson River PCB dredging project.

STATUS: For the reporting period, staff collected twenty-eight (28) raw and finished drinking water samples for PCB analysis from the following public water systems: Green Island (10 samples), Rhinebeck (6 samples), Port Ewen (6 samples), and Poughkeepsie (6 samples). All samples were found to have a PCB concentration less than the Federal and State drinking water standard of 500 nanograms per liter (ng/L). Phase 2 of the Hudson River dredging project is scheduled to continue until 2016.

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- E. Continue to perform security inspections of public water systems when needed in response to security issues. Perform security assessments, at least once per quarter, for volunteer systems to help improve individual system security and promote an improved security culture.

STATUS: One limited security inspection was done at the New York City water system. The visit focused on alleged deficiencies that had been noted in an anonymous complaint letter from a NYC watershed police officer.

Field and Bureau personnel include review of security components during sanitary surveys and other water system inspections (e.g., completed works inspections).

GOAL 4: ASSURE THAT POTABLE DRINKING WATER IS PROVIDED DURING EMERGENCIES.

1. Assure potable water is provided during water supply emergencies by:

- A. Responding to requests for technical assistance in times of emergencies, including coordinating with the State's Office of Emergency Management for the release of stockpile equipment (estimate 20 incidents). This includes the preparation and issuance of appropriate problem alerts.

STATUS: Sixteen (16) requests for release of emergency equipment from the State's stockpile were approved. These included water tanks, tankers, filters and pumps.

The Bureau is in the process of modifying some emergency stockpile equipment to enhance ease of transport. Additionally, the Bureau has begun planning for upgrades and expansion of existing water treatment equipment at the stockpiles. This has been made possible by a grant from the NYS Division of Homeland Security and Emergency Services (DHSES).

Problem alerts were prepared by Field and Bureau staff as required. As noted above, eighty-one (81) problem alerts were prepared and issued by Field or Bureau staff.

- B. Preparing a summary report of emergencies during the reporting year and submitting a copy to USEPA Region 2.

STATUS: A report on public water system emergencies in 2011 was submitted to USEPA Region 2 on July 30, 2012.

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- C. Promoting mutual aid between water utilities, including supporting the NY State Water/wastewater Agency Response Network (NYWARN), providing information to the regulated community about mutual aid and NYWARN, and incorporating NYWARN into appropriate training opportunities state wide.

STATUS: Bureau staff sits on the NYWARN Steering Committee and manages a small contract with the New York Section of the American Water Works Association (NYSAWWA) for promoting NYWARN. NYSAWWA promotes NYWARN by publishing articles about NYWARN, providing training, and performing outreach at water conferences. NYSAWWA also serves as the contact for the NYWARN web site at: <http://nywarn.org/>. The Bureau participated in a NYWARN outreach meeting intended to increase WARN participation among water systems in NY's "southern-tier" counties.

- D. Assuring that certified bulk and/or bottled water is available when necessary.

STATUS: The NYSDOH maintains up to date contact information for certified bulk haulers and bottled water producers, and provides this information on its public web site. The use of these sources during emergencies is covered by NYSDOH guidelines for CWS emergencies, and is overseen by LHD staff.

Potable water tankers are kept ready and available by the State Office of Emergency Management in coordination with the Bureau and field staff. The publicly posted information is available at:
http://www.health.ny.gov/environmental/water/drinking/bulk_bottle/index.htm.

GOAL 5: ASSURE THAT EMERGING ISSUES IN WATER SUPPLY REGULATIONS ARE EFFECTIVELY REVIEWED AND INNOVATIONS IN WATER SUPPLY DELIVERY ARE PROMOTED, AS WELL AS INCREASING THE TECHNICAL COMPETENCE AMONG REGULATORY AND OPERATIONAL STAFF.

- 1. Assure staff is properly trained by holding quarterly Bureau-wide meetings, attendance at the New York Section of the American Water Works Association (NYAWWA) and New York Rural Water Association (NYRWA) training sessions and other specific local, state and national conferences, including (American Water Works Association's National Conference, Association of State Drinking Water Administrators' National, Member, and Work Group Meetings, New England Interstate Water Pollution Control Commission, Association of Board Certification).**

STATUS: Meetings and remote conferences were held on a regularly scheduled basis to present or review regulatory issues and help develop and maintain standardization and efficient program delivery. These included weekly program managers and supervisors meetings, bi-weekly conference calls with regional environmental health

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directors, quarterly Bureau staff meetings, and quarterly conference call with regional water field coordinators. Program initiatives were presented to Bureau staff and to field staff thru these various venues, including, attendance at the spring and fall meetings of the Conference of Environmental Health Directors. Though significantly reduced due to travel restrictions, Bureau and field staff participated in key conferences including the spring and fall conferences of the NY section of the American Water Works Association (AWWA), and the NY Rural Water Association. Several local Waterworks Association and Rural Water sessions were attended by field staff, often to deliver program presentations. Two LHD staff attended the AWWA national conference in June 2012 in Dallas, Texas. Participation at various national workgroup meetings was accomplished through conference calls.

2. Assure that water systems are operated by competent operators by:

A. Certifying new operators (50)

STATUS: 352 new operators were certified.

B. Renewing operator certifications (1,000)

STATUS: 1,451 applications for operator certification renewals were reviewed.

C. Reviewing and endorsing operator certification courses (20)

STATUS: 62 operator certification courses were reviewed and endorsed.

D. Reviewing and approving operator renewal training courses (100)

STATUS: 1,096 operator certification renewal training courses were reviewed and approved.

E. Developing and implementing regulatory changes to standardize operator certification training provider approvals

STATUS: The Bureau developed proposed standards for delivery of certification training and most training providers are meeting these proposed standards voluntarily. Regulatory changes to require training providers to meet the proposed standards were initiated in 2007 but were on hold in FFY 2012 due to other priorities.

3. Assure that cross connection control programs at water systems are maintained by competent back flow prevention testers by:

A. New certified back flow prevention testers (25)

STATUS: 446 new back flow prevention testers were certified.*

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B. Renewing back flow prevention testers (500)

STATUS: 418 back flow prevention testers had their certification renewed.*

** As a result of revisions to the Public Health Law, specifically Subdivisions 9 and 10 of Section 225, the NYSDOH has delegated the issuance of backflow tester certifications to training providers. The NYSDOH ceased issuing initial backflow tester certifications on March 1, 2011 and ceased issuing renewal certifications on May 1, 2011. In addition, a renewal training course is now required for the renewal of a backflow tester certification. The numbers record documentation of the certification of course completion issued by NYSDOH-approved training providers.*

4. Conduct basic Environmental Health Course Water Supply 101 module at three locations each year for new state and county staff.

STATUS: The water supply module of the Basic Environmental Health Course for new staff was held on October 12 - 13, 2011 in Batavia, NY, Genesee County.

5. Continue participation in Child Health Initiative by assisting USEPA with collection and analysis of lead samples from school drinking water outlets in selected cities around the state.

STATUS: Bureau staff continued to assist USEPA Region 2 in providing technical assistance at the Utica Central School District and Yonkers Public Schools through participation in conference calls, compiling and analyzing the sampling data, and providing technical assistance to the school district during implementation of the program.

6. Actively seek additional funding to conduct relevant research.

STATUS: Research scientist staff continued to seek additional funding sources to conduct relevant drinking water quality research as detailed below:

CDC EHS-Net Research: Staff continued work on two Centers for Disease Control and Prevention (CDC) grants in this reporting period. One was entitled "Revitalizing Core Environmental Health Programs through the Environmental Health Specialists Network (EHS-Net) Research" and the second was a proposal focused on the delivery of environmental health services (i.e. practice). Both awards originally were made in July 2010 and CDC staff visited the Bureau in January 2011 for an initial program review. Grant renewals for 2012-2013 were submitted and awarded (\$175,000 for research and 50% of a \$150,000 practice grant written with our State food partners.); we are currently in year three of our second five-year cycle. Staff delivered a presentation at the New York Capital District's celebration of National Engineers Week entitled: "Development of an analytical method to obtain the baffle factor for a disinfection tank." Staff developed and delivered a training session for continuing engineering credits entitled: "Disinfection Process Performance

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Evaluation.” Staff presented a poster on the “Application of an Extended Formulation for the Baffle Factor for Disinfection Contact Systems,” 2012 Edwin C. Tift Water Supply Symposium, New York Section AWWA. Also as part of the CDC agreement, staff have implemented the use of computational fluid dynamics for checking components during design review. Under the EHS-Net grant a pilot study looking at pharmaceuticals and personal care products in groundwater beneath alternative on-site septic systems has been initiated. Several rounds of sampling at four alternative systems were completed in 2012. Laboratory analysis of the samples is currently on-going.

CDC HAB Research: *Staff are currently in year 5 of 5 of a CDC cooperative agreement grant to document harmful algae blooms (HABs) and their potential health impacts on humans and animals. The goals of this grant include: improving our laboratory capacity to run algal toxin assays, document blooms and potentially associated illnesses and animal deaths, conduct outreach and educations on the issue, and prepare response protocols. The Bureau is seeking additional funding to continue and expand this work but so far has been unsuccessful (see climate change research for more information). As part of the CDC HAB grant, staff focused sampling of microcystin levels in finished drinking water from public supplies using surface water sources with known histories of HABs before, during, and after a bloom. Staff will use this information to develop a response protocol for public supplies using surface waters.*

Bureau Climate Change Research: *Staff developed a research proposal to research the effects of climate change on drinking water supply quantity, quality and cost for systems that use surface water as a source of water. The proposal was to investigate the possible changes resulting from climate change including warmer temperatures, increased algal blooms/biological growth, extreme storm events, and drought. Unfortunately the study was not selected for funding but subsequent discussion with the potential funding agency (New York State Energy Research and Development Authority), indicated that NYSED expects to reissue a similar request for proposals (RFP) and that our proposal should be resubmitted. Staff are also looking for other RFPs from other entities to see if there are other opportunities for funding.*

Staff submitted a deliverable (September, 2012) on the SDWA-funded project involving alternate septic systems entitled: “Tracing microorganisms and surrogate organisms in the septic effluent of conventional and alternate septic treatment systems.” The program was administered by our sister agency, the NYSDEC.

GOAL 6: EFFECTIVELY ADMINISTER THE PUBLIC WATER SYSTEM SUPERVISION PROGRAM.

- 1. Ensure all USEPA reporting requirements under the grant are met and USEPA proposal for regulations and policies are promptly commented upon as requested.**

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STATUS: Reporting requirements for the FFY 2011 PWSS Grant were fully met, and this report completes the reporting requirements for FFY 2012. The Bureau provides appropriate input on proposed USEPA regulations and policy matters as they arise.

- 2. Continue to promote need for adequate resources to implement full water supply regulatory program, including appropriate budget proposals and personnel management.**

STATUS: The program has continued its efforts to maintain adequate budget support while participating in the State and Department's budget austerity initiatives. The Drinking Water Enhancement grant program for county health departments continued with an allocation of \$5.3 million for state fiscal year 2012.

- 3. Ensure overall program coordination with Federal and State agencies.**

STATUS: A revised PWSS grant agreement for FFY's 2011 – 2014 was submitted to USEPA in December 2011. The second portion of the PWSS grant award for FFY 2012 was accepted by NYSDOH on March 26, 2012.

- 4. Submit to USEPA a status report or work plan achievements at MID and END of year.**

STATUS: The mid- year status report documenting PWSS grant work plan activities completed during the first half of FFY 2012 was submitted to USEPA on June 20, 2012. This end-of-year status report documents work plan achievements for FFY 2012, October 1, 2011 through September 30, 2012.

NYC Compliance and Watershed Program

- 1. Continue to track New York City (NYC) avoidance compliance by:**

- A. Providing daily oversight of the City's compliance with all avoidance deliverables.**

STATUS: Bureau staff continued to review and respond accordingly to all Filtration Avoidance Determination (FAD) deliverables. Staff conducted the Annual On-Site Inspection of the NYC Catskill and Delaware Water Supply System and prepared the 2011 Annual On-Site Inspection Report, which evaluated the watershed control program and disinfection facilities for this filtration avoidance system. Following the rainfall from Hurricane Irene and Tropical Storm Lee in August and September 2011, turbidity and fecal coliform levels in NYC's source water continued to be elevated into the reporting period. The Bureau enhanced oversight of water quality monitoring and emergency treatment with alum and chlorine to ensure that water quality limits for filtration avoidance were not exceeded. The Bureau issued a Notice of Violation to the NYC water system for not collecting a 4-hour sample for turbidity analysis that

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was representative of their source water on April 20, 2012. Two incidents occurred during the reporting period, on March 17 and July 25, 2012, when NYC lost chlorine. While no violations were incurred, the Bureau ensured that adequate CT was supplied. Additional FAD oversight was provided through field visits to the watershed during the reporting period, in particular to project sites for the Stream Management Program and for storm water management around Kensico Reservoir. The Bureau also monitored start-up and testing of the new facilities for the Cross River Reservoir pump station to ensure use of the pump station was done in accordance with FAD requirements.

- B. Participating in the City's Agricultural Program by participating on the Watershed Agricultural Council.

STATUS: Due to state travel restriction staff did not participate on the Watershed Agricultural Council (WAC) during the reporting period. However, Bureau staff reviewed activities of the Watershed Agricultural Program as reported in the New York City Department of Environmental Protection's (NYCDEP's) annual FAD report.

- C. Work jointly with USEPA to assure the Hillview Reservoir covering project is in accordance with Administrative Orders.

STATUS: Staff participated in a functional exercise of the Cryptosporidium and Giardia Action Plan (CGAP) for Hillview Reservoir, and submitted recommendations to NYCDEP for improvement of the plan. In addition, the Bureau reviewed monthly reports on NYCDEP's activities to monitor and deter wildlife in and around Hillview Reservoir. The CGAP, the functional exercise, and the wildlife management reports are requirements of the Hillview Reservoir Administrative Order.

- D. Provide oversight and liaison with all "Parties" to ensure implementation of the New York City Memorandum of Agreement (NYC MOA), including participation in the various MOA Committees.

STATUS: The Bureau continued to participate in various committees including: the Wastewater Watershed Enforcement Coordination Committee; the Stormwater Watershed Enforcement Coordination Committee; and the Cannonsville Recreational Boating task force. The latter group oversaw implementation of a pilot program to allow recreational boating on Cannonsville Reservoir. The program was determined to not be detrimental to water quality, and was expanded to Pepacton Reservoir during the reporting period. Staff participated in meetings involving USEPA, NYSDEC, New York State Department of State, NYCDEP, the Coalition of Watershed Towns, the Catskill Watershed Corporation, and watershed county representatives to help watershed counties coordinate assistance from NYCDEP and the Federal Emergency Management

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Agency's (FEMA's) Flood Hazard Mitigation Program after the flooding and devastation brought on by Hurricane Irene and Tropical Storm Lee in 2011.

- E. With issuance of the final Catskill/Delaware Filtration Avoidance Determination (FAD) (July 2007), NYSDOH, having been delegated primacy, will work collaboratively with Region 2 in the oversight of the FAD.

STATUS: Since the transfer of primacy for oversight of the FAD under the Surface Water Treatment Rule, NYSDOH has continued to collaborate with USEPA on the oversight of the FAD. During the reporting period, NYSDOH, in consultation with USEPA, conducted activities related to revising the 2007 FAD to develop program requirements for the Second Five-Year Period of the FAD. In addition, USEPA participated with the Bureau in the Annual On-Site Inspection of the Catskill and Delaware Water Supply System, and NYSDOH has coordinated with USEPA in commenting on FAD deliverables.

- F. Ensure that the Croton Water Treatment Plant (filtration) remains on schedule.

STATUS: Construction of the Croton water filtration plant (WFP) has been delayed due to a number of circumstances, as described in NYCDEP's monthly progress report for the Croton Consent Decree. In April 2011, NYSDOH participated with USEPA and NYCDEP in discussions on a revised schedule for completion of the plant, which would accommodate these delays, however a revised schedule was not finalized during the reporting period. NYSDOH reviews progress of the construction of the Croton WFP through monthly reports submitted by NYCDEP and periodic visits to the construction site to help ensure that NYCDEP is expediting construction, to the extent practicable. NYSDOH continued to participate in Croton Regulators' meetings, and continued discussions with NYCDEP on staffing and operator certification requirements for the new filtration plant.

- G. Ensure that the Cat/Del Ultraviolet (UV) light disinfection facility remains on schedule.

STATUS: NYSDOH continued to participate in bi-monthly UV facility construction progress meetings and to periodically inspect the UV facility to ensure construction is proceeding in accordance with NYSDOH approved plans. During the reporting period, NYSDOH reviewed and accepted a procedure for disinfection of the new treatment facility, commented on a Scope of Work for an expert UV panel convened to review the validation work for the UV units installed at the facility, and subsequently met with this panel and NYCDEP. As a result of the validation review and subsequent meeting, NYSDOH, in consultation with USEPA and the New York City Department of Health and Mental Health (NYCDOHMH), determined to require NYCDEP to conduct additional UV validation testing. Staff worked with USEPA staff to revise the 2007 Cat/Del UV Administrative Order on Consent (AOC) to include this requirement and establish

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new milestones. NYCDEP met the March 17 and August 3, 2012 milestones established by the 2007 Cat/Del UV AOC and the August 31, 2012 milestone established by the revised AOC.

- H. Assure that the adoption of amendments to the New York City Watershed Rules and Regulations by the State occurs in a timely manner.

STATUS: Amendments to the New York City Watershed Rules and Regulations were formally adopted into the Rules of the City of New York and became effective in the watershed on April 4, 2010. The documents required by the State Administrative Procedures Act (SAPA) in order to adopt these Watershed Regulations into NYS code have been submitted to the State Regulatory Affairs unit and are currently under review by the Bureau and NYSDOH Division of Legal Affairs staff.

- I. Oversee development of and finalize the mid-term revisions to New York City's 2007 Filtration Avoidance Determination (FAD).

STATUS: Staff continues to draft the mid-term revisions to NYC's 2007 FAD. Program requirements for the Second Five-Year Period of the FAD are being developed to reflect NYCDEP's 2011 Long-Term Watershed Protection Plan and the results of ongoing discussions among NYSDOH, USEPA, NYSDEC and NYCDEP.